

WHAT IS CLAIMED IS:

1. A fine stencil structure correction device having a charged particle beam microscope lens-barrel which scans and corrects shapes of defect portions of a fine stencil structure sample using an etching or deposition function, wherein the fine stencil structure correction device further comprises transmitted beam detecting means for detecting a transmitted beam which is the charged particle beam penetrating the sample provided on a sample stage when the sample is scanned by the charged particle beam.
2. The fine stencil structure correction device as disclosed in claim 1, wherein the transmitted beam detecting means is an absorbed current detector.
3. The fine stencil structure correction device as disclosed in claim 1, wherein the charged particle beam lens-barrel is a focused ion beam lens-barrel, and the transmitted beam detecting means comprises a beam target which emits secondary charged particles subject to the transmitted beam and a secondary charged particle detector which detects the secondary charged particles from the beam target.
4. The fine stencil structure correction device as disclosed in claim 1, further comprising a scanning transmission electron microscope lens-barrel whose primary beam for observation irradiates the sample, and transmitted electron beam detecting means for detecting a transmitted electron beam which is an electron beam penetrating the sample provided on a sample stage.
5. The fine stencil structure correction device as disclosed

in claim 1, further comprising a scanning transmission electron microscope lens-barrel whose primary electron beam for observation irradiates the sample, and transmitted electron beam detecting means for detecting a transmitted electron beam which is an electron beam penetrating the sample provided on a sample stage when the sample is scanned by the primary electron beam, the transmitted electron beam detecting means comprising a lens system for enlarging the transmitted electron beam and a projection plate on which the enlarged beam is projected.

6. The fine stencil structure correcting device as disclosed in claim 4, wherein the charged particle beam lens-barrel and the electron beam lens-barrel are located facing each other so as to sandwich the sample stage, with each transmitted beam detecting means being capable of being alternately retracted when not in use so as not to obstruct beam irradiation from the other beam lens-barrel.

7. The fine stencil structure correction device as disclosed in claim 4, wherein either or both of the transmitted beam detecting means comprise an absorbed current detector which also functions as a beam target for emitting secondary electrons when the position of the absorbed current detector is changed relative to the charged particle beam or the electron beam.

8. The fine stencil structure correction device as disclosed in claim 6, wherein either or both of the transmitted beam detecting means comprise an absorbed current detector which also functions as a beam target for emitting secondary electrons

when the position of the absorbed current detector is changed relative to the charged particle beam or the electron beam.

9. The fine stencil structure correction device as disclosed in claim 6, wherein either or both of the transmitted beam detecting means comprise an absorbed current detector which also functions as a beam target for emitting secondary electrons when the position of the absorbed current detector is changed relative to the charged particle beam or the electron beam, and the absorbed current detector can be displaced at the third position so as not to obstruct beam irradiation from the other beam lens-barrel.